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STAAS & HALSEY LLP		
SUITE 700		
1201 NEW YORK AVENUE, N.W.		
WASHINGTON, DC 20005		

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/628,468	Applicant(s) LEE, SANG-AM	
	Examiner Parul Gupta	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 18-26, 28, 30, 36-43, 47-51 and 53-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 18-26, 28, 30, 32-43, 47-51, 53, 54-57 and 59 is/are rejected.
- 7) ☐ Claim(s) 58 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-12,18-26,28,30,36-43,47-51,53 and 54-58 are pending for examination as interpreted by the examiner. The arguments and amendment filed on 10/9/07 were also considered with the following results.

Claim Objections

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Two claims were numbered 56. Misnumbered claim 56 (the second one) has been renumbered 57. Misnumbered claim 57 has been renumbered 58. Misnumbered claim 58 has been renumbered 59.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 55 is rejected under 35 U.S.C. 102(b) as being anticipated by Marquardt, Jr., US Patent 6,160,787.

Regarding claim 55, Marquardt, Jr. discloses a method of recording data in a plurality of various recording formats on an optical disc, the method comprising: recording first data in a first recording format (CD) and second data in a second data in

a second recording format (DVD) on a single side (read from same side as seen in figure 5) of the optical disc regardless of a type of the optical disc (column 5, line 40 to column 6, line 5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-12, 19-26, and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et al., US Patent 5,825,726 in view of Weidner, US Patent 6,205,112 in view of Marquardt, Jr.

Regarding claim 1, Hwang et al. teaches a method of recording data on an optical storage disc in a certain recording format, the method comprising: selecting a disc recording format from a plurality of disc recording formats to record the data on the optical storage medium independent of a type of the optical storage medium (column 2, lines 16-22); recording the data on the optical storage disc in the selected disc recording format (column 2, lines 22-27); and adding information regarding the selected one of the plurality of disc recording formats on the optical storage disc (column 2, lines 27-31). Hwang et al. does not teach different formats of different types of data. All of the formats correspond to one type. However, Weidner teaches recording multiple formats of data on the same disc (abstract). It would have been obvious to one of ordinary skill in the art

at the time of the invention to include different formats of different types of data on one disc as taught by Weidner into the system of Hwang et al. The motivation would be to make the system more versatile. Neither of them does, but Marquardt, Jr. et al. teaches multiple recording formats on a single side of the disc (figure 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of recording different formats on a single side of a disc as taught by Marquardt, Jr. into the system of Hwang et al. in view of Weidner. The motivation would be to have a medium readable by different types of players (column 2, lines 1-5 of Marquardt, Jr.).

Regarding claim 2, Hwang et al. teaches the method of claim 1, wherein the selected disc recording format to record the data is selected by a user (column 2, lines 20-21).

Regarding claim 3, Hwang et al. teaches in figure 2 and column 2, lines 51-58 the method of claim 1, wherein the disc recording format information is recorded in an area (LIN and LOT) adjacent an area in which the data is recorded (PGM).

Regarding claim 4, Hwang et al. teaches a method of recording data on an optical storage medium in a plurality of disc recording formats, the method comprising: selecting separate ones of the plurality of disc recording format for each of the corresponding data to record each of the data on the optical storage medium (column 2, lines 16-22); recording each of the data on the optical storage medium in the corresponding selected disc recording formats (column 2, lines 22-27); and adding information regarding the selected disc recording format on the optical storage medium whenever each data is recorded in the corresponding one of the selected disc recording formats (column 2, lines 27-31). Column 2, lines 61-62 explains how extra data can be

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stored in the same way. Hwang et al. does not teach different formats of different types of data. All of the formats correspond to one type. However, Weidner teaches recording multiple formats of data on the same disc (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to include different formats of different types of data on one disc as taught by Weidner into the system of Hwang et al. The motivation would be to make the system more versatile. Neither of them does, but Marquardt, Jr. et al. teaches multiple recording formats on a single side of the disc (figure 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of recording different formats on a single side of a disc as taught by Marquardt, Jr. into the system of Hwang et al. in view of Weidner. The motivation would be to have a medium readable by different types of players (column 2, lines 1-5 of Marquardt, Jr.).

Regarding claim 5, Hwang et al. teaches the method of claim 4, wherein the selected disc recording format corresponding to each of the data is selected by a user (column 2, lines 20-21).

Regarding claim 6, Hwang et al. teaches in figure 4 and column 2, lines 51-58 the method of claim 4, wherein the disc recording format information is recorded in an area (LIN1 and LIN2 and LOT1 and LOT2) adjacent each area in which the data is recorded (PGM1 and PGM2).

Regarding claim 7, Hwang et al. teaches the method of claim 4, further comprising, after completion of the data recording, preparing and recording file systems (described as a "file structure" in column 2, lines 62-66).

Regarding claim 8, Hwang et al. teaches the method of claim 7, wherein the file system ("file structure") is prepared and recorded every time new data is recorded (per session) on the optical storage medium (column 2, lines 62-66).

Regarding claim 9, Hwang et al. teaches the method of claim 7, wherein the file system ("file structure") is prepared and recorded after completing recording of the data in an entire data area (after all sessions) of the optical storage medium (column 2, lines 62-66).

Regarding claim 10, Hwang et al. teaches the method of claim 8, wherein: the file system comprises directories ("TOC" of column 4, lines 28-34) for the respective disc recording formats, each of the directories comprises information regarding attributes of each of the data in the corresponding disc recording format, and the attribute information includes a data file name, disc recording format information, and a starting address (column 4, lines 55-60).

Regarding claim 11, Hwang et al. teaches a method of reproducing data from an optical storage disc in which data is recorded (column 4, lines 61-67) using a method of claim 1, the method comprising: reading disc recording format information regarding desired data from an information area of the optical storage disc distinguished from a plurality of disc recording format information (column 5, line 1); and reproducing the desired data based on the read disc recording format information (column 5, lines 2-15). Hwang et al. does not teach different formats of different types of data. All of the formats correspond to one type. However, Weidner teaches recording multiple formats of data on the same disc (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to include different formats of different types of data on one

disc as taught by Weidner into the system of Hwang et al. The motivation would be to make the system more versatile.

Regarding claim 12, Hwang et al. teaches a method of reproducing data from an optical storage medium in which data is recorded (column 4, lines 61-67) using a method of claim 7, the method comprising: reading data for a file system from the optical storage medium (column 8, lines 39-42); reading a disc recording format information distinguished from a plurality of disc recording format information and a starting address of corresponding desired data from the file system (column 5, lines 1 and 11-15 and column 8, lines 45-54); and reading the desired data from the corresponding starting address and decoding the desired data based on the corresponding disc recording format information (column 8, lines 54-63). Hwang et al. does not teach different formats of different types of data. All of the formats correspond to one type. However, Weidner teaches recording multiple formats of data on the same disc (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to include different formats of different types of data on one disc as taught by Weidner into the system of Hwang et al. The motivation would be to make the system more versatile.

Regarding claim 19, Hwang et al. teaches the method of claim 9, wherein: the file system comprises directories ("TOC" of column 4, lines 28-34) for the respective disc recording formats, each of the directories comprises information regarding attributes of each of the data in the corresponding disc recording format (column 2, lines 50-55), and the attribute information includes a data file name, disc recording format information,

and a starting address (described in column 1, lines 42-45, column 2, lines 50-55, and column 4, lines 55-60).

Regarding claim 20, Hwang et al. teaches a method of reproducing data from an optical storage disc in which data is recorded (column 4, lines 61-67) using a method of claim 2, the method comprising: reading disc recording format information regarding desired data from an information area of the optical storage disc distinguished from a plurality of disc recording format information (column 5, line 1); and reproducing the desired data based on the read disc recording format information (column 5, lines 2-15).

Regarding claim 21, Hwang et al. teaches a method of reproducing data from an optical storage disc in which data is recorded (column 4, lines 61-67) using a method of claim 3, the method comprising: reading disc recording format information regarding desired data from an information area of the optical storage disc distinguished from a plurality of disc recording format information (column 5, line 1); and reproducing the desired data based on the read disc recording format information (column 5, lines 2-15).

Regarding claim 22, Hwang et al. teaches a method of reproducing data from an optical storage medium in which data is recorded (column 4, lines 61-67) using a method of claim 4, the method comprising: reading disc recording format information regarding desired data from an information area of the optical storage medium distinguished from a plurality of disc recording format information (column 5, line 1); and reproducing the desired data based on the read disc recording format information (column 5, lines 2-15).

Regarding claim 23, Hwang et al. teaches a method of reproducing data from an optical storage medium in which data is recorded (column 4, lines 61-67) using a

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method of claim 5, the method comprising: reading disc recording format information regarding desired data from an information area of the optical storage medium distinguished from a plurality of disc recording format information (column 5, line 1); and reproducing the desired data based on the read disc recording format information (column 5, lines 2-15).

Regarding claim 24, Hwang et al. teaches a method of reproducing data from an optical storage medium in which data is recorded (column 4, lines 61-67) using a method of claim 6, the method comprising: reading disc recording format information regarding desired data from an information area of the optical storage medium distinguished from a plurality of disc recording format information (column 5, line 1); and reproducing the desired data based on the read disc recording format information (column 5, lines 2-15).

Regarding claim 25, Hwang et al. teaches a method of reproducing data from an optical storage medium in which data is recorded using a method of claim 8, the method comprising: reading data for a file system from the optical storage medium (column 8, lines 39-42); reading a disc recording format information distinguished from a plurality of disc recording format information and a starting address of corresponding desired data from the file system (column 8, lines 45-54); and reading the desired data from the corresponding starting address and decoding the desired data based on the corresponding disc recording format information (column 8, lines 54-63).

Regarding claim 26, Hwang et al. teaches a method of reproducing data from an optical storage medium in which data is recorded using a method of claim 9, the method comprising: reading data for a file system from the optical storage medium (column 8,

lines 39-42); reading a disc recording format information distinguished from a plurality of disc recording format information and a starting address of corresponding desired data from the file system (column 8, lines 45-54); and reading the desired data from the corresponding starting address and decoding the desired data based on the corresponding disc recording format information (column 8, lines 54-63).

Regarding claim 47, Hwang et al. teaches a computer readable medium (column 1, lines 16-22) encoded with processing instructions for implementing a method of recording data on an optical storage medium in a disc recording format performed by a computer, the method comprising: selecting a disc recording format from a plurality of disc recording formats to record the data on the optical storage medium (column 1, lines 16-22); recording the data on the optical storage medium in the selected disc recording format (column 2, lines 22-27); adding disc recording format information regarding the selected one of the plurality of disc recording formats on the optical storage medium (column 2, lines 27-31), selecting another one of the plurality of disc recording formats for additional data to be recorded on the optical storage medium (column 2, lines 16-22); recording the additional data on the optical storage medium in the corresponding another selected disc recording format (column 2, lines 22-27); and adding additional disc recording format information regarding the another selected disc recording format on the optical storage medium (column 2, lines 27-31). Column 2, lines 61-62 explains how extra data can be stored in the same way. Hwang et al. does not teach different formats of different types of data. All of the formats correspond to one type. However, Weidner teaches recording multiple formats of data on the same disc (abstract). It would

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have been obvious to one of ordinary skill in the art at the time of the invention to include different formats of different types of data on one disc as taught by Weidner into the system of Hwang et al. The motivation would be to make the system more versatile. None of them does, but Marquardt, Jr. et al. teaches multiple recording formats on a single side of the disc (figure 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of recording different formats on a single side of a disc as taught by Marquardt, Jr. into the system of Hwang et al. in view of Weidner. The motivation would be to have a medium readable by different types of players (column 2, lines 1-5 of Marquardt, Jr.).

Regarding claim 48, Hwang et al. teaches the computer readable medium (column 1, lines 16-22) of claim 47, wherein the method further comprises, after the data and the additional data area recorded, preparing and recording on the optical storage medium a file system ("file structure") including the disc recording format information and the additional disc recording format information (column 2, lines 62-66). Hwang et al. does not but Marquardt, Jr. et al. teaches multiple recording formats on a single side of the disc (figure 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of recording different formats on a single side of a disc as taught by Marquardt, Jr. into the system of Hwang et al. in view of Weidner. The motivation would be to have a medium readable by different types of players (column 2, lines 1-5 of Marquardt, Jr.).

4. Claims 18 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et al. in view of Marquardt, Jr.

Regarding claim 18, Hwang et al. teaches in figure 4 an optical storage medium comprising: an area on which a plurality of data are recorded in various corresponding disc recording formats (PMA1 and PMA2); and a predetermined area in which file system information is recorded (LIN1 and LIN2), wherein the file system information includes information regarding the various disc recording formats and starting addresses of each of the data (column 2, lines 16-22). Hwang et al. does not but Marquardt, Jr. et al. teaches multiple recording formats on a single side of the disc (figure 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of recording different formats on a single side of a disc as taught by Marquardt, Jr. into the system of Hwang et al. The motivation would be to have a medium readable by different types of players (column 2, lines 1-5 of Marquardt, Jr.).

Regarding claim 49, Hwang et al. teaches a computer readable medium encoded with processing instructions for implementing a method of reproducing data from an optical storage medium performed by a computer (column 1, lines 16-22), the method comprising: reading disc recording format information corresponding to selected data from an information area of the optical storage medium distinguished from a plurality of disc recording format information (column 5, line 1) corresponding, respectively, to unselected data (unselected data is not recorded and thus the format is not included); and reproducing the selected data based on the read disc recording format information (column 5, lines 2-15). Hwang et al. does not but Marquardt, Jr. et al. teaches multiple recording formats on a single side of the disc (figure 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of

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recording different formats on a single side of a disc as taught by Marquardt, Jr. into the system of Hwang et al. The motivation would be to have a medium readable by different types of players (column 2, lines 1-5 of Marquardt, Jr.).

5. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et al. in view of Weidner in view of Marquardt, Jr.

Regarding claim 50, Hwang et al. teaches the computer readable medium (column 1, lines 16-22) of claim 49, wherein: the reading the disc recording format information comprises: reading a file system from the optical disc, the file system having files for a plurality of different disc recording information for corresponding different disc recording formats (column 8, lines 39-42), and reading the disc recording format information distinguished from the plurality of disc recording format information and a starting address corresponding to the selected data from the file system (column 8, lines 45-54); and the reproducing the selected data comprises reading the selected data from the corresponding starting address and decoding the selected data based on the corresponding disc recording format information (column 8, lines 54-63). Hwang et al. does not teach different formats of different types of data. All of the formats correspond to one type. However, Weidner teaches recording multiple formats of data on the same disc (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to include different formats of different types of data on one disc as taught by Weidner into the system of Hwang et al. The motivation would be to make the system more versatile.

6. Claims 28, 30, 36-43, 51, and 53-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faroudja, US Patent 5,754,248, in view of Hwang et al. in view of Weidner in view of Marquardt, Jr.

Regarding claim 28, Faroudja teaches in figure 1 an optical apparatus that transfers data with respect to an optical storage medium, the apparatus comprising: a data converter (element 2) which converts a received one of encoded data and data ("sources") into the other one of the encoded data and the data ("output data") according to a determined one of a plurality of different recording formats; and a controller (purpose solved by the data indicating the type of source given as "FILM YES/NO") which determines a disc recording format selected from a plurality of different disc recording formats and which corresponds to a selected one of the data, controls the data converter to convert the received one of the encoded data and the data according to the determined one of the plurality of different disc recording formats. Faroudja does not teach the specific functions of an optical pickup. Hwang et al. teaches a pickup that optically transfers encoded data with respect to the optical storage medium and the method that controls the pickup to optically transfer the encoded data (column 3, lines 52-66, wherein the controller controls the pickup to transfer disc recording format information regarding the determined disc recording format with respect to a first region of the optical storage medium, and controls the pickup to transfer the selected data with respect to a second region of the optical storage medium other than the first region, and the first region includes another disc recording format information regarding another one of the plurality of different disc recording formats, and the second region has other data encoded in the another one of

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the plurality of different disc recording formats (column 3, lines 52-66). The given section explains how the pickup is transferred to the different regions based on the data on the medium. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of the optical pickup as taught by Hwang et al. into the system of Faroudja. This would serve the purpose of allowing the accurate reading, recording and reproducing of data, as is well known in the art. Hwang et al. does not teach different formats of different types of data. All of the formats correspond to one type. However, Weidner teaches recording multiple formats of data on the same disc (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to include different formats of different types of data on one disc as taught by Weidner into the system of Hwang et al. The motivation would be to make the system more versatile. None of them does, but Marquardt, Jr. et al., teaches multiple recording formats on a single side of the disc (figure 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of recording different formats on a single side of a disc as taught by Marquardt, Jr. into the system of Faroudja in view of Hwang et al. in view of Weidner. The motivation would be to have a medium readable by different types of players (column 2, lines 1-5 of Marquardt, Jr.).

Regarding claim 30, Hwang et al. teaches in figure 4 the optical apparatus of claim 28, wherein the first region (consisting of LIN1, PMA1, and LOT1) has a common border with the second region (consisting of LIN2, PMA2, and LOT2).

Regarding claim 36, Faroudja teaches in figure 1 an optical apparatus that transfers data with respect to an optical storage medium, the apparatus comprising: a

data converter (element 2) which converts a received one of encoded data and data ("sources") into the other one of the encoded data and the data ("output data") according to a determined one of a plurality of different recording formats; and a controller (purpose solved by the data indicating the type of source given as "FILM YES/NO" in figure 1) which determines a disc recording format selected from a plurality of different disc recording formats and which corresponds to a selected one of the data, controls the data converter to convert the received one of the encoded data and the data according to the determined one of the plurality of different recording formats (column 5, lines 47-61). Faroudja does not teach the specific functions of an optical pickup. Hwang et al. teaches a pickup that is controlled to optically transfer encoded data with respect to the optical storage medium according to different disc recording formats (column 3, lines 52-66). The given section explains how the pickup is transferred to the different regions based on the data on the medium. Faroudja also does not but Hwang et al. teaches the apparatus wherein the plurality of different disc recording formats includes disc recording formats for at least two of digital versatile disk (DVD) data, MP3 data, video CD (VCD) data, MPEG4 data, video recording (VR) data, MPEG2 data, audio compression 3 (AC3) data, and linear pulse code modulation (LPCM) data. Column 1, lines 16-37 describe all of the different formats available for use with the given apparatus. These include both video and digital audio formats as well as data formats. These are similar to the formats given by the applicant. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of the optical pickup used for various disc recording formats as taught by Hwang et al. into the system of Faroudja. This would serve the purpose of allowing the

accurate reading, recording and reproducing of data, as is well known in the art. Hwang et al. does not teach different formats of different types of data. All of the formats correspond to one type. However, Weidner teaches recording multiple formats of data on the same disc (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to include different formats of different types of data on one disc as taught by Weidner into the system of Faroudja in view of Hwang et al. The motivation would be to make the system more versatile.

Regarding claim 37, Faroudja teaches in figure 6 the optical apparatus of claim 28, wherein: the data converter comprises a decoder (element 26) which decodes the encoded data read from the optical storage medium into the data according to the determined one of the plurality of different disc recording formats; and the controller (purpose solved by the data indicating the type of source given as "FILM YES/NO") reads disc recording format information corresponding to the selected one of the data from the optical storage medium to determine the one the plurality of different disc recording formats, and controls the decoder to decode the encoded data to provide the selected data in the determined one of the plurality of different disc recording formats. Hwang et al. does not teach different formats of different types of data. All of the formats correspond to one type. However, Weidner teaches recording multiple formats of data on the same disc (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to include different formats of different types of data on one disc as taught by Weidner into the system of Hwang et al. The motivation would be to make the system more versatile.

Regarding claim 38, Hwang et al. teaches the optical apparatus of claim 37, wherein the controller (element 113 of figure 1) reads a file system from the optical storage medium in which the determined disc recording format information is stored in order to read the recording format information (column 5, line 1).

Regarding claim 39, Hwang et al. teaches the optical apparatus of claim 38, wherein the file system further comprises another disc recording format information corresponding to another one of the data encoded using another one of the plurality of different formats (column 2, lines 51-58).

Regarding claim 40, Faroudja teaches the optical apparatus of claim 28, wherein: the data converter (element 16 of figure 4) comprises an encoder (element 2 of figure 1) which encodes the data into the encoded data to be written to the optical storage medium according to the determined one of the plurality of different disc recording formats; and the controller (purpose solved by the data indicating the type of source given as "FILM YES/NO" in figure 1) controls the encoder to encode the selected one of the data in the determined one of the plurality of different disc recording formats. Faroudja does not teach the specific functions of an optical pickup. Hwang et al. teaches a pickup and a method that controls the pickup to record disc recording format information regarding the determined disc recording format and the encoded data on the optical storage medium (column 3, lines 52-66). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of the optical pickup as taught by Hwang et al. into the system of Faroudja. This would serve the purpose of allowing the accurate reading, recording and reproducing of data, as is well known in the art. Hwang et al. does not teach different formats of different types of data.

All of the formats correspond to one type. However, Weidner teaches recording multiple formats of data on the same disc (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to include different formats of different types of data on one disc as taught by Weidner into the system of Faroudja in view of Hwang et al. The motivation would be to make the system more versatile.

Regarding claim 41, Hwang et al. teaches the optical apparatus of claim 40, further comprising a user interface through which a command is received to determine the one of the plurality of different disc recording formats for use in encoding the selected one of the data (column 2, lines 20-21).

Regarding claim 42, Hwang et al. teaches the optical apparatus of claim 40, wherein the controller (element 113 of figure 1) further prepares a file system ("TOC") in which the determined disc recording format information is stored and controls the pickup to record the prepared file system (column 6, lines 58-67).

Regarding claim 43, Hwang et al. teaches the optical apparatus of claim 42, wherein the file system further comprises another disc recording format information corresponding to another one of the data encoded using another one of the plurality of different disc recording formats (column 2, lines 51-58).

Regarding claim 51, Faroudja teaches a method of transferring data with respect to an optical storage medium comprising: converting a received one of the data and encoded data to another one of the data and the encoded data using a first recording format (done by element 16 of figure 4); and transferring the encoded data with respect to the optical storage medium, wherein the first recording format is independent of a type of the optical storage medium on which the encoded data is recorded (point of

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invention as explained in column 2, lines 19-27), and the optical storage medium is of the type having a second recording format not compatible with the first recording format (column 2, lines 19-27 describe the different formats being used as not being compatible with each other). Faroudja does not but Hwang et al. teaches that the recording formats are different disc recording formats (column 2, lines 51-58). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of recording using a disc as taught by Hwang et al. into the system of Faroudja. The motivation would be to have a medium that records data only once and can reproduce the data many times (column 1, lines 16-18 of Hwang et al.). Hwang et al. does not teach different formats of different types of data. All of the formats correspond to one type. However, Weidner teaches recording multiple formats of data on the same disc (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to include different formats of different types of data on one disc as taught by Weidner into the system of Faroudja in view of Hwang et al. The motivation would be to make the system more versatile. None of them does, but Marquardt, Jr. et al. teaches multiple recording formats on a single side of the disc (figure 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of recording different formats on a single side of a disc as taught by Marquardt, Jr. into the system of Faroudja in view of Hwang et al. and Weidner. The motivation would be to have a medium readable by different types of players (column 2, lines 1-5 of Marquardt, Jr.).

Regarding claim 53, Faroudja teaches the method of claim 51, wherein: the converting the received one of the data and the encoded data comprises encoding the

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data in the first recording format (done by element 2 of figure 1), and the transferring the encoded data comprises recording the encoded data on the optical storage medium (column 1, lines 15-17 explain that the point of the invention is to record the data to the medium). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of recording using a disc as taught by Hwang et al. into the system of Faroudja. The motivation would be to have a medium that records data only once and can reproduce the data many times (column 1, lines 16-18 of Hwang et al.). Hwang et al. does not teach different formats of different types of data. All of the formats correspond to one type. However, Weidner teaches recording multiple formats of data on the same disc (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to include different formats of different types of data on one disc as taught by Weidner into the system of Hwang et al. The motivation would be to make the system more versatile.

Regarding claim 54, Faroudja teaches the method of claim 51, wherein: the converting the received one of the data and the encoded data comprises decoding the encoded data from the first recording format (done by element 26 of figure 6), and the transferring the encoded data comprises reading the encoded data from the optical storage medium (column 1, lines 15-17 explain that the point of the invention is to playback the data from the medium). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of recording using a disc as taught by Hwang et al. into the system of Faroudja. The motivation would be to have a medium that records data only once and can reproduce the data many times (column 1, lines 16-18 of Hwang et al.).

7. Claims 56, 57 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marquardt, Jr., in view of Hwang et al.

Regarding claim 56, Marquardt, Jr. discloses the method of claim 55. Marquardt, Jr. does not but Hwang et al. teaches the method further comprising: recording format information of the first data in a first information area and format information of the second data in a second information area, the first and second information area being located on a same side of the optical disc as the data (figure 4 shows the lead-in areas, which store this information as seen in column 2, lines 51-58). It would have been obvious to one of ordinary skill in the art at the time of the invention to include storing format information as taught by Hwang et al. in the system of Marquardt, Jr. The motivation would be to allow more control for the user.

Regarding claim 57, Marquardt, Jr. discloses the method of claim 55. Marquardt, Jr. does not but Hwang et al. teaches the method wherein the first recording format and the second recording format are selected by a user (column 2, lines 17-32). It would have been obvious to one of ordinary skill in the art at the time of the invention to include allowing the user to choose the formats as taught by Hwang et al. in the system of Marquardt, Jr. The motivation would be to allow more control for the user.

Regarding claim 59, Marquardt, Jr. in view of Hwang et al. teaches the method of claim 56. Marquardt, Jr. further teaches the method wherein the plurality of various recording formats comprise a DVD-video format, an MP3 format, a VCD format, an MPEG4 format, a DVD format and a VR format. In column 2, lines 5-10, Marquardt, Jr. teaches that the medium may be used for CD (VCD format) or DVD (DVD-video and DVD formats) data.

Regarding claim 59, Marquardt, Jr. in view of Hwang et al. teaches the method of claim 56. Hwang et al. further teaches the method wherein data in the plurality of various recording formats is sequentially recorded on the single side of the optical disc (figure 4).



Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Parul Gupta whose telephone number is 571-272-5260. The examiner can normally be reached on Monday through Thursday, from 9:30 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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PHG
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ANDREA WELLINGTON
SUPERVISORY PATENT EXAMINER

for William Korzuch